



Africanized Honey Bees:

Some Questions and Answers

Important facts about AHB:

- Africanized honey bees can sting only once and then they die. You cannot be stung multiple times by the same bee.
- The sting of an AHB is no more painful or harmful than that of a European honey bee.
- Swarms of Africanized honey bees and individual bees away from the hive are no more likely to sting than European bees.
- Near the nest or hive, AHB are likely to respond quicker and in greater numbers, to sting, and to chase intruders (including people) for greater distances than European honey bees.

What are Africanized honey bees?

Africanized honey bees (sometimes sensationalized as “killer bees”) are a type of honey bee that has migrated from South America into some of the lower United States. Honey bees are not native to the Americas; prior to 1956, the only honey bees found in North and South America were European honey bees, which were brought to the New World as early as the late 1500s. As the name suggests, European honey bees are native to Europe and are adapted to temperate climates. In 1956, some honey bees were imported from Africa to Brazil as part of a breeding experiment to produce a honey bee that would be well adapted to tropical areas. Some of those African bees escaped

from their apiaries and crossbred with the populations of gentle European bees found in Brazil. The resulting cross between those bees is the Africanized honey bee, or AHB, which retained the highly defensive, unwelcome, stinging behavior of the African strain.

Where are AHB now?

At present, AHB have spread through parts of the southwestern states of Texas, New Mexico, Arizona, Nevada, and California. The AHB moved into Texas from Mexico in October 1990, and migration since then has been through southern Texas and west into Arizona (July 1993), New Mexico (November 1993), California (November 1994), Nevada (August

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1998), and Utah (1999). The AHB also moved into Puerto Rico (September 1994) and the U.S. Virgin Islands (March 1995). The AHB is now found in several counties in central Florida (2005). There also have been isolated reports of AHB being found at various U.S. ports, but those bees have been destroyed (see *Africanized Honey Bees: Where Are They Now, and When Will They Arrive in North Carolina?* AG-682-01, for further information).

Haven't there already been reports of AHB in North Carolina?

Yes, swarms of AHB have been found and destroyed at the ports of Morehead City (1989) and Wilmington (1991). Those swarms of AHB "hitchhiked" on ships that entered those ports from areas that had Africanized honey bees. The bees were detected and destroyed through the joint efforts of the N.C. Department of Agriculture and Consumer Services (NCDA&CS) and customs agents working for the U.S. Department of Agriculture (USDA).

When will Africanized honey bees arrive in North Carolina?

Earlier estimates predicted that AHB would reach N.C. by 1995. However, the bee's progress has slowed greatly since it reached the United States through Texas. The recent discovery of AHB in Florida increases the possibility that the bees will enter N.C. in the next few years, but it is difficult to predict their movement or when they may arrive. Some experts suggest the bees may reach N.C. sooner by hitchhiking on the nation's trucking



system than by natural migration through swarming.

What is being done to prevent AHB from entering N.C. ports?

The U.S. Department of Agriculture, through one of its agencies, the Animal and Plant Health Inspection Service, or APHIS, has a policy in cooperation with various state governments to monitor the movement of Africanized honey bees into U.S. ports and to destroy such bees upon arrival. In North Carolina, NCDA&CS and North Carolina State University have worked with APHIS inspectors in Wilmington and Morehead City so that they are prepared to deal with the arrival of bees at those ports. In addition, both port areas have been declared "bee-free" zones, and trap nests have been established to attract and monitor any bee swarms. Any such bees will be destroyed and then examined to determine if they were Africanized.

Do Africanized honey bees look different from regular honey bees?

No. AHB are closely related to European bees, and detailed diagnostic techniques must be used in a laboratory to identify them.

If anything, the AHB is slightly smaller than our common European bee.

Isn't one sting by an Africanized honey bee fatal to a human?

No. The sting and venom of an AHB is nearly identical to that of a European honey bee. The venom from any honey bee may cause swelling, irritation, and temporary pain, but it is usually not fatal unless the person stung is allergic to honey bees. A small percentage of humans are allergic to various insect stings, and for those individuals one sting may result in death if prompt medical attention is not received. The danger from Africanized honey bees arises from the greater likelihood of receiving numerous stings from attacking bees.

How dangerous are AHB to people?

AHB are more defensive than European bees; that is, their attack-and-sting response in protecting their hive after being disturbed or threatened is much greater than that of the European honey bee. However, this defensiveness is only a problem in certain situations. Swarm clusters and individual Africanized honey bees foraging on flower blossoms are really no more dangerous than European bees. It is only near a nest or hive that the defensiveness becomes a problem. Reported deaths have been limited to situations in which animals or humans have disturbed an established hive.

What can beekeepers do about Africanized honey bees?

First, it is important to note that U.S. beekeepers are not responsible for the AHB situation and don't want the bees here either. Second, beekeepers are the primary resource against the AHB. The beekeeping industry is well organized and working on methods to reduce the aggressive nature of the bees and keep their populations low. North Carolina beekeepers, university personnel, and government officials are already

poised to assist the industry and the public if, and when, Africanized honey bees reach North Carolina.

How important is beekeeping to the U.S. and North Carolina?

The primary value of honey bees to the nation's and state's economy is crop pollination, not honey production. In the U.S., 90 cultivated crops with a value of more than \$20 billion benefit from honey bee pollination. In North Carolina, the commercial production of such crops as cucumbers, apples, watermelons, squash, and berries would not be possible without honey bees.

Whom do I call if I suspect Africanized honey bees are in my area?

Note that *Africanized honey bees do not live in beehives* but rather in natural or manmade cavities. If you locate a suspect colony of bees, keep your distance and do not disturb the nest. Immediately contact your local NCDA&CS Apiary Inspector (919-233-8214), call the N.C. AHB Information Line (1-800-206-9333), or contact a licensed Pest Control Operator in your area (see *Africanized Honey Bees: Prevention and Control*, AG-682-02, for more information).

CONTACT INFORMATION IN NORTH CAROLINA

More information on the AHB in N.C. may be found at: www.NCAHB.com

If you believe you have Africanized honey bees, contact:

North Carolina Department of Agriculture and Consumer Services, Apiary Inspection

<http://www.agr.state.nc.us/plantind/plant/apiary/apiarymp.htm>

North Carolina State University Apiculture Program

<http://entomology.ncsu.edu/apiculture>

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2,000 copies of this public document were printed at a cost of \$460.00, or \$0.23 per copy.

Published by

NORTH CAROLINA COOPERATIVE EXTENSION

COLLEGE OF
AGRICULTURE & LIFE SCIENCES
ACADEMICS ▲ RESEARCH ▲ EXTENSION